Appl. No. 10/708,783
Amdt. dated August 9, 2005
Reply to Office action of April 18, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims
in the application.

Listing of Claims:

5   Claim 1-7 (Canceled).

Claim 8 (New): A method for monitoring a machine comprising:

  selecting a product wafer running through the machine;

  performing a non-destructive detection to the selected product wafer

10   to inspect a plurality of defects;

  separating pre-layer defects from defects generated by the machine;

  analyzing the defects generated by the machine for killer defects;

  if killer defects are present among the defects generated by the
machine, initiating an alarm on the machine; and

15   if killer defects are not present among the defects generated by the
machine, processing a work of the machine.

Claim 9 (New): The method of claim 8 wherein the step of separating the
pre-layer defects is performed according to a predetermined database, the

20   database comprising a classifying rule of each defect type and defect
information of each defect type.

Claim 10 (New): The method of claim 9 wherein the defect information of
each defect type comprises an influence degree over a yield of the machine

25   of each defect type.

Claim 11 (New): The method of claim 8 wherein when killer defects are

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detected, the method further comprises following steps:

> performing a root cause analysis according to the defect type of the detected defects; and
>
> informing a responsible person of the machine to correct process parameters of the machine.

Claim 12 (New): The method of claim 8 wherein the method utilizes inline automatic defect classification (ADC) tools to classify the defects.

Claim 13 (New): The method of claim 12 wherein the ADC tools includes databases of defect types of each layer to classify the defects.

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